

Agriculture in Further Education

Webcover

**NATIONAL REPORT FROM THE INSPECTORATE
2000-01**

**THE
FURTHER
EDUCATION
FUNDING
COUNCIL**

***THE FURTHER EDUCATION
FUNDING COUNCIL***

The Further Education Funding Council (FEFC) has a legal duty to make sure further education in England is properly assessed. The FEFC's inspectorate inspects and reports on each college of further education according to a four-year cycle. It also inspects other further education provision funded by the FEFC. In fulfilling its work programme, the inspectorate assesses and reports nationally on the curriculum, disseminates good practice and advises the FEFC's quality assessment committee.

College inspections are carried out in accordance with the framework and guidelines described in Council Circulars 97/12, 97/13 and 97/22. Inspections seek to validate the data and judgements provided by colleges in self-assessment reports. They involve full-time inspectors and registered part-time inspectors who have knowledge of, and experience in, the work they inspect. A member of the Council's audit service works with inspectors in assessing aspects of governance and management. All colleges are invited to nominate a senior member of their staff to participate in the inspection as a team member.

*Cheylesmore House
Quinton Road
Coventry CV1 2WT
Telephone 024 7686 3000
Fax 024 7686 3100
Website www.fefc.ac.uk*

© FEFC February 2001

You may photocopy this report and use extracts in promotional or other material, provided quotes are accurate, and the findings are not misrepresented.

Contents

	Paragraph
Summary	
<hr/>	
Introduction	1
Background to the survey report	1
Developments since the 1997 survey report	5
<hr/>	
Agriculture Provision in Further Education Colleges	8
The colleges	8
Courses and qualifications	11
Enrolments	14
<hr/>	
Education and Training Needs of Employers	18
<hr/>	
Quality of Provision	22
Teaching and learning	22
Assessment	35
Enrichment activities	39
Work experience	41
Student support	43
Course management	48
<hr/>	
Students' Achievements	51
<hr/>	
Resources	60
Specialist resources	61
Learning resources	67
Staffing	70
<hr/>	
Conclusion and Issues	72
<hr/>	
Bibliography	
<hr/>	
Acknowledgements	

Summary

Many of the issues identified in the first curriculum area report remain and, in some cases, have assumed greater significance. Agriculture is still the smallest Further Education Funding Council (FEFC) programme area in terms of the number of students enrolled. Since the last survey report, enrolments on programme area courses have increased by 14%, mainly on part-time courses. The number of students increased by 6% in general further education colleges but declined by 1.5% in specialist colleges. Enrolments in the specialist agriculture and horticulture colleges appear to have peaked. Over the last few years, colleges have experienced a significant shift in the balance of provision and the numbers of students enrolled from courses in agriculture and countryside management towards courses in equine studies and animal care. Whilst demand for recruits to the agricultural industry remains buoyant, the poor public image of farming is having a significant impact on the numbers applying for courses and jobs. The number of students on full-time agriculture, countryside management and equine courses is now falling. In contrast, there has been a significant growth in the number of students studying animal care courses. These changes have accelerated in 1998-99 and look set to continue. Standards of teaching and learning are good and many students successfully achieve their qualification. Achievement rates have risen in specialist colleges from 74% in 1996-97 to 79% in 1998-99, and from 60% in 1996-97 to 71% in 1998-99 in general further education colleges. However, there are signs of decline in the quality of some provision and in the performance of students.

Colleges offer a good range of full-time and part-time courses. In most subjects, students have the opportunity to study full time or part time and to build on their previous experience and qualifications. Students are sometimes placed on inappropriate courses and insufficient account is taken of their previous experience when planning their learning programmes. Low recruitment in some subject areas means that courses are not always viable. Consequently gaps in provision are beginning to appear. There are good opportunities for students to obtain vocational qualifications in addition to their main qualification. The majority of specialist colleges now offer higher education courses.

Most colleges retain close links with employers and make good use of employers' facilities in their teaching, enabling students to gain experience of modern equipment where the range of enterprises on college farms has been reduced. Employers are rarely fully involved in curriculum planning and review, though they are generally satisfied with the range of courses on offer and the ways in which they are taught. Some employers have expressed concern about the range of students' knowledge and skills as colleges have reduced the amount of teaching time allocated to specialist subjects, such as commercial horticulture, and to practical work on some courses.

The majority of students still study in small, specialist colleges, which continue to face many of the difficulties identified in the 1997 report.

Specialist colleges continue to carry proportionately higher levels of course and general administrative costs, compared with general further education colleges, and many of them have found it difficult to achieve economies of scale. Between 1997-98 and 1999-2000, the average level of FEFC funding for agriculture and horticulture colleges has fallen by 20%. Recently, however, the FEFC has introduced residential bursaries to help students meet accommodation costs and, from July 2000, specialist colleges will also receive an extra 5% in their average level of funding, in recognition of their higher operational costs. Some colleges have managed change more effectively than others. Successful colleges have developed effective management structures, good communications and effective quality assurance arrangements. They have achieved their strategic objectives to retain and build on the traditional strengths of agricultural education while reacting to the changing environment, and diversify their business activities to maintain their viability. Specialist colleges face particular difficulties in increasing their enrolments and improving efficiency. These difficulties, coupled with a reduction in funding, have not always been well managed. Resources have not been matched to demand and enrolment targets have not been accurate. Curriculum managers have failed to exploit the opportunities for greater efficiency. The poor financial position of some colleges has been a major driving force behind merger proposals. A number of colleges have merged with other institutions in an effort to improve efficiency and to benefit from specialist management in areas such as student support and personnel management. However, there has been a considerable fall in the number of students on further education agriculture courses following mergers of specialist colleges with higher education institutions. As colleges successfully widen participation, students on courses in the agricultural programme area are being drawn from an increasingly wide variety of backgrounds. Student support is not always sufficiently well developed to cope with the demands of the increasing number of students who require additional learning support to complete their studies successfully. To some extent, the increased administrative load on some staff has accentuated these problems. In many colleges, the number of full-time teachers has continued to decline since the last survey report; in a few cases, by as much as 40%. In some cases, ineffective management has adversely affected the quality of learning and the standards students achieve. The proportion of good or outstanding inspection grades awarded to lessons is still lower than the average for many other programme areas. Unresolved problems remain such as: a failure to address the widely differing needs of students on the same course; the ineffective management of some lessons, particularly where two or more course groups are taught together; and the inadequacy of formal tutorial arrangements in many colleges.

The period of rapid change identified in the last report is by no means over for colleges. Strong leadership and effective quality assurance remain high priorities if the needs of students and employers are to be met.

Introduction

Background to the survey report

1 This is the second national report on the quality of agriculture provision funded by the Further Education Funding Council (FEFC). 'Agriculture' falls within the FEFC's programme area 2 and the term covers:

- agriculture, including commercial horticulture, farm machinery and rural business
- amenity horticulture, including sports turf and greenkeeping, garden centres and arboriculture
- countryside and environmental management, including forestry, woodland management, game and fish husbandry
- equine studies
- animal care
- floristry.

2 There are also aspects of agriculture-related provision in other FEFC programme areas, such as science and engineering. The first report in 1997 focused mainly on the specialist agriculture and horticulture colleges. This report looks at provision in both specialist and general further education colleges. Issues raised include the ways in which courses are organised and taught, and students' achievements. The report also comments on trends since the last report.

3 Agriculture is the smallest of the FEFC's 10 programme areas. In 1998-99, the FEFC funded 67,000 enrolments on agriculture courses, representing approximately 1.5% of all FEFC-funded enrolments. There has been a 14% increase in enrolments on agriculture courses since the 1997 survey. During this period, student numbers increased by 6% in general further education colleges and declined by 1.5% in specialist colleges. Between 1997-98 and 1999-2000, one general further education college which had increased its overall enrolments by 17%, experienced a 54% increase in the number of students enrolling to study agriculture subjects. In 1998-99, agriculture

provision funded from other sources, such as the training and enterprise councils (TECs), accounted for a further 26,000 enrolments.

4 This report draws on the findings of recent college inspections of agriculture. Information was also obtained from a questionnaire and visits to selected colleges. Between September 1997 and June 2000, inspectors carried out inspections of agriculture in 18 specialist colleges and 14 general further education colleges as part of the inspectorate's second quadrennial cycle of inspections. Inspectors observed 783 teaching sessions and awarded 62 curriculum area grades. Specialist institutions accounted for 77% of the curriculum areas inspected. During 1999-2000, a further 70 colleges completed a detailed questionnaire relating to key aspects of agriculture provision and inspectors carried out follow-up visits to a sample of these colleges. The report draws on data contained in the responses to the questionnaires and on data provided by colleges through the individualised student record (ISR). The report also takes account of the views of colleges, employers and professional bodies, as expressed in their responses to the questionnaires. Inspectors conducted interviews with some employers and representatives of professional bodies.

Developments since the 1997 survey report

5 In some respects, the sector has moved on since 1997, developing strengths and addressing weaknesses. In other respects, there have been relatively few improvements. Some of the strengths and weaknesses identified in the 1997 report are shown below, together with an indication of developments since 1997.

Strengths

Effective links with industry, and an involvement by employers in the teaching and promotion of learning

Links with industry continue to be a strength. Colleges make effective use of employers' premises for assignments and work experience and to enable students to work with the most up-to-date equipment. However, employers are less involved with colleges in the planning and review of courses than they were in 1997.

Technically knowledgeable teachers who understand the needs of employers

This remains a strength, but there is slow progress in updating the industrial and commercial experience of teachers.

The effective use of college estates for teaching purposes

Specialist colleges and general further education colleges which have merged with former agriculture colleges continue to develop and enhance their estates to provide realistic working environments for all subjects in the programme area. In subjects such as animal care where student numbers have increased considerably, most colleges retain an appropriate range of animals but the number of animals is often inadequate.

Good staff-student relationships

Good, informal relationships between staff and students continue to be a feature of the work in agriculture, particularly in the specialist colleges.

The high standards which students achieve in their practical work and assignments

Well-planned practical lessons and well-designed assignments enable most students to achieve high standards of work. The teaching of practical work continues to be more effective than classroom-based teaching.

The availability of employer-related certification of knowledge and skills which students can acquire in addition to their vocational qualifications

Colleges continue to provide students with the opportunity to achieve vocational qualifications and employment-related certificates of competence in addition to their main qualification. Many students improve their job prospects by achieving such qualifications.

The wide range of activities undertaken by students outside lessons which relate to their future employment

Students' demands for enrichment activities have lessened significantly. Most colleges no longer provide a full programme of social, cultural and sporting activities for their students.

Weaknesses

Insufficient attention to students' previous experience when planning their learning programmes and a failure to meet the varying learning needs of students

Although colleges record details of students' previous experience and knowledge at enrolment, this information is still not used effectively to plan individual learning programmes.

Inconsistent and, in some cases, inadequate tutorial procedures

This weakness remains and in many colleges the position has worsened. Formal tutorial programmes are often poorly managed. Arrangements for setting and monitoring learning targets are inadequate. Records of tutors meetings with students are often unsatisfactory or incomplete.

A failure to review curriculum content and adjust teaching methods when the number of taught hours on courses are reduced

Course planning has improved but there is often insufficient attention to the methods most appropriate for teaching the various elements of the curriculum and ensuring that all topics are covered effectively.

Confusion over the purposes and levels of some courses, and the progression routes between them

Colleges have improved their planning of progression routes, and better initial advice and guidance is ensuring that most students are on the appropriate course.

6 The 1997 report identified a number of challenges facing colleges of agriculture and horticulture at that time:

- the reduction in the high level of cost for each student since 1993
- the decline in demand for some courses in agriculture and horticulture and the need to develop quickly new courses in other subject areas to achieve growth targets
- the small size of specialist colleges, which meant that managers and teachers must cover a wide range of responsibilities
- the rural location and wide catchment area of the colleges which make transport difficult and expensive for many students
- the reduction in the number of discretionary awards for students
- the low numbers on many courses
- courses which are costly to deliver.

7 These challenges continue to exist.

However, the more successful colleges have planned effectively. They have long-term strategies to develop their curriculum, increase student numbers and diversify their activities in order to remain cost effective. Managers and teachers in specialist colleges also continue to take on a wider range of responsibilities and this is beginning to have an adverse effect on the quality of provision. In the last year, funding has been made available to help students meet the costs of daily travel and living accommodation at college.

Agriculture Provision in Further Education Colleges

The colleges

8 Since the last national survey report in 1997, the profile of agriculture provision in specialist colleges has altered significantly. For example, enrolments on agriculture and countryside courses have declined and there has been a substantial increase in the number of students taking animal care courses. At the time of the first survey report, there were 32 specialist agriculture and horticulture colleges in the further education sector, accounting for 63% of full-time and part-time students in the programme area. By 1999-2000, the number had fallen to 24, accounting for 56% of the students. Approximately 160 general further education colleges offer courses in agriculture although many of these offer only part-time courses leading to national vocational qualifications (NVQs). Many of these colleges are in large urban areas in northern England and the Midlands and six of them now incorporate former specialist colleges. The number of students studying agriculture in many of the general further education colleges is low; for example, there are over 100 colleges with less than 100 students. Most students are enrolled on foundation and intermediate level courses in countryside studies and amenity horticulture. Since the last survey, however, many colleges have developed advanced level courses, and some plan to develop higher education courses in areas such as animal care and equine studies, in particular. Approximately 6% of FEFC-funded students in the programme area are enrolled at higher education institutions.

9 Since 1993, a third of the specialist agricultural colleges have merged with other institutions, a trend which looks set to continue. Most of the mergers have been with further or higher education institutions but three of the colleges have themselves merged to form a single college offering courses to two large rural counties. Few of the general further education colleges and higher education institutions involved in mergers had previous experience of

providing agriculture courses. In some cases, mergers have been followed by a fall in the number of courses offered and the number of students enrolled. In particular, there has been a considerable fall in the number of students on further education agriculture courses following mergers of specialist colleges with higher education institutions. In one case, numbers have fallen by 40%. Generally, mergers between specialist colleges and other further education colleges have not led to a decline in the number of agriculture enrolments but, in some cases, the range of courses has been reduced. Mergers apart, there are few examples of effective collaboration between neighbouring specialist colleges and general further education colleges in planning courses and using resources.

10 Many of the issues identified in the last report still remain and, in some respects, have become more acute. Specialist colleges continue to carry proportionately high levels of course, general administrative and residential costs, compared with general further education colleges and many of them have found it difficult to achieve economies of scale. Between 1997-98 and 1999-2000, the average level of FEFC funding for agriculture and horticulture colleges had fallen by 20%, from £21.59 to £17.31. The average level of FEFC funding for all colleges in 1999-2000 was £16.12. Some colleges have had difficulty in managing their reduction in funding and a recent National Audit Office report estimates that almost one in three small rural colleges are in financial difficulty. The sharp decline in the income colleges earn from farming activities has exacerbated their difficulties. The poor financial position of some colleges has been a major driving force behind merger proposals. Where colleges have achieved growth and increased efficiency, cost savings have been produced mainly by reducing numbers of staff. In most colleges, the number of full-time teachers has continued to decline since the last survey report; in a few cases, by as much as 40%. In many colleges, an increasing number of teachers are employed on

fractional contracts, providing these colleges with the opportunity to employ teachers who are working in the agricultural industry or who have expertise in particular areas of the curriculum. Management teams in most specialist colleges have been reduced and managers and teachers have taken on a wider range of responsibilities. More administrative duties have to be undertaken by fewer full-time staff, placing pressure on them, particularly during busy periods. Change has not always been managed effectively and some of the changes have adversely affected the quality of teaching, learning and student support. Many specialist colleges have become less reliant on FEFC income, though some are becoming more dependent on Higher Education Funding Council for England (HEFCE) funding for their higher education courses. Colleges of agriculture and horticulture provide residential accommodation for some of their students and local education authorities (LEAs) have provided grants to students to help them with the expense of living in college. Over recent years, the value of these awards has fallen substantially and some authorities had withdrawn them completely. Recently, however, the FEFC has introduced residential bursaries, as a replacement for discretionary awards, to help students meet accommodation costs. From July 2000, specialist colleges will also receive an extra 5% in their average level of funding, in recognition of their higher operational costs.

Courses and qualifications

11 Agriculture courses prepare students for a wide range of occupations in land-based industries and in other industries concerned with plant and animal husbandry, the environment, and the use of machinery and equipment. Many of the courses include a significant amount of science and management studies and most are designed to reflect practices and developments in local industry. As identified in the first survey report, the majority of full-time students are enrolled on

first diploma, national certificate and national diploma courses. Some colleges offer a full-time, one-year advanced national certificate, aimed primarily at students with work experience who already have a national certificate. Revised, centrally devised syllabuses for Edexcel certificates and diplomas will be introduced from September 2000. The information which colleges need to prepare for these new courses, however, has been slow to arrive and there has been insufficient time for some to adapt their existing courses fully to meet the requirements of the curriculum 2000 changes. Since the last survey, general national vocational qualifications (GNVQs) in land and environment have been introduced. However, the demand for these has been very low. Only a few schools and general further education colleges have been able to recruit enough students. Consequently, the GNVQ advanced land and environment programme has been withdrawn and the final assessments will take place in 2001. A minority of colleges provide general certificate of secondary education (GCSE) and general certificate of education advanced level (GCE A level) courses in agriculture and environmental subjects.

12 Most of the agriculture and horticulture colleges offer courses in each of the six subprogramme areas. In most subjects there is a good range of courses with opportunities for students to study full time or part time and to build on their previous experience and qualifications. An increasing number of colleges provide entry-level courses which aim to provide students, including those with learning difficulties and/or disabilities, with the confidence and competence to work with plants and animals. The level of courses and the routes by which students progress from one course to another are not always as clear as they might be, though colleges have done much to improve initial advice and guidance and to strengthen progression routes. In most subjects, students can progress to higher level courses. Some colleges continue to run courses with low

enrolments by combining groups of students from different courses for some core subjects. Sometimes, insufficient account is taken of students' previous experience and the students are placed on inappropriate courses. Some specialist colleges have diversified provision by introducing courses from other programme areas. Many are still up to 90% reliant on the provision of agriculture courses. An increasing minority, however, are beginning to provide courses in business, construction, engineering, sports studies and outdoor leisure. One specialist agriculture college has built childcare

facilities on its site and developed early years and nursery nursing courses. Specialist colleges, in particular, provide a satisfactory range of qualifications for those employed in industry. These include short, technical updating courses, as well as courses leading to NVQ up to level 3. The majority of specialist colleges now offer higher education courses, in conjunction with a local university, particularly in animal and equine science subjects. The greater proportion of students in some specialist colleges are studying for higher diplomas and degrees in agriculture subjects.

Table 1. Agriculture qualifications studied in England by level of study 1998-99

<i>NVQ level</i>	<i>Students (%)</i>
Level 1 or equivalent	18.1
Level 2 or equivalent	34.7
Level 3 or equivalent	26.6
Level 4, 5 or higher education	2.6
Unknown	18.0

Source: ISR

13 The majority of colleges offer good opportunities for students to obtain vocational qualifications in addition to their main qualification, in order to strengthen their job prospects. Qualifications include certificates of operational competence in areas such as pesticide application, forklift truck driving and working with chainsaws, NVQs in customer service and industry standard qualifications recognised by professional bodies such as the British Horse Society. Costs deter many

students from taking these additional awards but those who do are generally successful. Increasingly, students gain accreditation for the key skills they have developed in communication, numeracy and information technology (IT).

Enrolments

14 In 1998-99, there were some 23,000 full-time and 44,000 part-time enrolments on courses in the agriculture programme area.

Table 2. Agriculture course enrolments for the academic years 1996-97 to 1999-2000

<i>Mode of attendance</i>	<i>1996-97</i>	<i>1997-98</i>	<i>1998-99</i>	<i>1999-2000</i>	<i>% difference 1996-97 to 1999-2000</i>
Full time	23,234	23,569	23,111	22,946	-1.24%
Part time	39,180	41,921	44,682	48,104	22.78%
Total	62,414	65,490	67,793	71,050	13.84%

Source: ISR

15 Since the last survey report:

- enrolments on programme area courses increased by 14%
- enrolments on full-time courses declined yet enrolments on part-time courses increased by 23%
- the number of students on programme area courses increased by 6% in general further education colleges but declined by 1.5% in specialist colleges
- the increased enrolments in general further education colleges reflect, to some extent, the numbers inherited through merger with specialist colleges of agriculture
- enrolments on all first diploma courses, national certificates and diplomas in countryside studies and floristry have declined steadily
- the number of students on full-time courses have declined in all subprogramme areas apart from animal care, which has shown a significant increase of 56%.

Table 3. Full-time enrolments on first diploma, national certificate and national diploma courses, 1996-97 to 1998-99

<i>Year</i>	<i>Agriculture</i>	<i>Horticulture</i>	<i>Countryside</i>	<i>Equine</i>	<i>Animal care</i>	<i>Total</i>
1996-97	1,339	1,446	1,048	1,132	1,862	6,827
1997-98	1,189	1,402	865	1,103	2,599	7,158
1998-99	1,082	1,380	742	1,090	2,909	7,203
% change	-19%	-5%	-29%	-4%	56%	5%

Source: programme area benchmarking data

16 Over the past few years, colleges have experienced a significant shift in the balance of provision from courses in agriculture and countryside management towards courses in equine studies and animal care. This shift accelerated in 1998-99 and looks set to continue, particularly in the case of animal care. Enrolments on agriculture courses have shown a marked decline. Whilst demand for recruits to the agricultural industry remains buoyant, the poor public image of farming is having a significant impact on the numbers applying for courses and jobs. At least two specialist colleges no longer offer courses in production agriculture. The situation is less clear for the other subprogramme areas. The recent increase in enrolments for equine studies courses has slowed and some colleges report a decline. In most colleges, the demand for horticulture courses is reasonably strong but the emphasis has moved from commercial plant

production to amenity horticulture, which includes garden and landscape design and maintenance. Recruitment to countryside management courses and full-time floristry courses has declined, and is poor in many colleges. Low recruitment for first diploma courses and for courses in particular subject areas has led to them being discontinued. Consequently there are gaps in provision which disadvantage both students and employers. Some colleges have become heavily reliant on the growth in demand for animal care courses to maintain student numbers. Up to 40% of the agriculture students in some colleges are enrolled on animal care courses. Not all colleges have managed changes in the balance of their provision effectively. There are too many staff in some areas of specialism and too few in others and resources no longer reflect the balance of provision. This is having an adverse effect on the quality of work of some students.

17 Although many agriculture and horticulture colleges are working hard to attract students from a wider range of backgrounds, some do not have clear, co-ordinated strategies for marketing and promotional work, or for addressing declining enrolments on particular courses. The better colleges use effective methods of promoting the courses they offer. They have good links with schools; college staff attend careers evenings at the schools and work with careers teachers to give regular presentations to pupils. They also provide 'taster' courses which allow pupils to experience the range of courses available at the college. Many colleges hold events throughout the year such as lambing days, equestrian events and general open days at which they promote their courses to the public. Publicity material for

courses is generally well designed and informative. There are well-managed arrangements in most colleges for pre-enrolment advice and guidance and most students feel that interview and admission arrangements are effective and thorough. Nevertheless, students are not always fully aware of what a course entails and the level of commitment required to complete it successfully. Few colleges have developed procedures for accrediting students' prior achievements. The proportion of students from minority ethnic groups is low for programme area 2 compared with other programme areas. Although the proportion of male students is higher than for other programme areas, most students on floristry, animal care and equine courses are female.

Table 4. Agriculture student population 1998-99 compared with that for all FEFC programme areas

	<i>Agriculture (%)</i>	<i>All FEFC programme areas (%)</i>
Male students	53	43
Students from minority ethnic groups	2	13
Students aged 16 to 24	47	35
Students aged 25 to 59	53	65

Source: ISR

Education and Training Needs of Employers

18 The industries served by courses in the agriculture programme area have a number of characteristics in common which were identified in the first survey report. They include a high proportion of small, specialist organisations, predominantly in rural areas, which have relatively few employees. Few businesses are large enough to provide structured, in-house training and assessment programmes. They, therefore, rely heavily on colleges to meet their education and training needs.

19 The national training organisation for the land-based sector, Lantra, reports that the level of skills needed by new employees is increasing. To obtain employment in many occupations, students now need to acquire level 3 rather than level 2 qualifications. Lantra suggests that courses for students entering employment should continue to emphasise practical work, to enable students to perform basic tasks competently as well as to carry out complex technical and management duties. An ability to work with a minimum of supervision, to show initiative and accept high levels of responsibility are also important personal skills required by employees. Lantra agrees that many colleges are effectively meeting these needs. However, the majority of land-based businesses are small firms and sole operators and colleges need to work more closely with employers to provide greater flexibility in the times at which, and the methods by which, they can study. The extent to which the existing workforce engages in training is highly variable. In 1999 each person spent an average of two days a year in training, mainly in health and safety training. Only 10% of businesses had some form of training plan, however, and few colleges had carried out a systematic analysis of employers' training needs or were able to offer flexible study arrangements, including training delivered on employers' premises. Information and communications technology is underdeveloped as an educational resource and has had little impact on training for employees. There is scope for it to be developed to meet the needs of

students in college and, more particularly, to help those who are remote from the college to improve their technical and managerial proficiency.

At a college which has received funding to develop training programmes for those working in industry, teachers are looking at the spread of locations of businesses and how to involve more people in on-line training and assessment. The college is developing training packages including video teaching and provides support for students through the Internet.

20 In their responses to inspectors' questionnaires, employers remain complimentary about the extent to which colleges develop job-related knowledge and about the personal qualities of students. They indicated:

- a general level of satisfaction with the range of courses on offer and the way in which courses are taught
- concern about the perceived decline in students' level of subject expertise
- concern over the reduction of courses in some specialist subjects, for example, commercial horticulture
- concern over the lack of opportunity for employees to take courses at times which suit their circumstances.

21 Many local employers work closely with colleges to promote education and careers in the land-based industries. They complain, however, that most colleges fail to provide them with effective information on the courses they offer.

Quality of Provision

Teaching and learning

22 Many of the judgements about the quality of provision in agriculture, expressed in the last report, are still valid. The quality of teaching remains generally satisfactory and, sometimes good. Over the last three years, the proportion of lessons observed which were graded 1 and 2 was 61%, approximately the same as for the previous three years. The percentage of good or outstanding lessons, however, is still lower than in many other programme areas. The quality of teaching and learning varies within the programme area. Over the last three years, the percentage of lessons graded 1 and 2 averaged

63% if lessons in animal care were excluded. Only 55% of animal care lessons were graded 1 and 2. The highest quality of work is still found in practical sessions. Between 1997 and 2000, 61% of the curriculum areas inspected were graded 1 and 2 but only 6% were judged to be outstanding. The proportion of curriculum area grades 1 and 2 has declined significantly over the last three years. In 1999-2000, 56% of curriculum areas were judged to be good, but none outstanding. However, the proportion of good and outstanding provision was higher than in most other programme areas for that year.

Table 5. Quality of teaching and learning in the agriculture programme area

	<i>Lesson observation grades (%)</i>					Total
	1	2	3	4	5	
1993 to 1996	19	40	30	11	0	100
1997-98	14	45	33	8	0	100
1998-99	19	40	33	7	0	100
1999-2000	18	43	30	9	0	100
1997 to 2000	17	43	33	7	0	100
All programme areas 1999-2000	17	45	31	6	0	100
	<i>Curriculum area grades (%)</i>					Total
	1	2	3	4	5	
1993 to 1996	13	54	32	1	0	100
1997-98	0	74	26	0	0	100
1998-99	16	40	36	8	0	100
1999-2000	0	56	44	0	0	100
1997 to 2000	6	55	35	4	0	100
All programme areas 1999-2000	6	44	44	7	0	100

Source: inspectorate database

Note: percentage subject to recording

23 Students experience appropriately varied methods of working. They are involved in practicals, lectures and tutorials, and undertake case studies, assignments, work experience and visits. On most courses, half the timetabled sessions involve practical work and practical work is well taught. The material covered in many of the non-practical lessons is strongly related to industry issues, but these lessons are generally less effective. In many classroom-based lessons, for example, teachers pay insufficient attention to the needs of individual learners.

24 The amount of time that students spend in direct contact with teachers has continued to fall. Some colleges address this by providing students with constructive guidance on how to study effectively on their own. In many cases, however, students are spending an increasing amount of time working on their own with little or no preparation for this. Much more could be done to ensure that students use their private study time more productively. Some of the work they are requested to do simply duplicates work already done in lessons.

In a first diploma lesson on animal care, the teacher talked to students about some of the general principles to be observed when checking the health of animals. The class discussed the relevance of these principles to the care of specific animals, students were then given a carefully structured exercise to carry out in their own time. The exercise required them to select an animal housed in the college's animal care unit and to report on its health, using the principles discussed in the lesson. The teacher checked that the students understood what was required of them and asked them to be ready to present their findings in the next lesson.

25 Most lessons are well planned. Topics are developed logically and care is taken in introducing new concepts. A strength of the teaching of theory is the continual and effective

reference to practical work. Teachers use well-chosen examples of industrial practice to illustrate the relevance of particular theories and concepts. For example, the financial implications of husbandry and management decisions are made clear, using information derived from the college's commercial units. In some lessons, the variety of learning activities helps to maintain students' interest. Students work on their own, in groups and as a class on topical exercises designed to improve their understanding of the theory to which they have been introduced. Misunderstandings are dealt with, and additional help is provided for weaker students.

At the start of a lesson in equine studies on the national diploma course, the teacher clearly explained a horse's anatomy and how the features of particular horses were suited to particular tasks. Working in groups of two and three, the students selected one of the college's horses and produced a report on the animal for a prospective purchaser, explaining how the horse was suited to a specific role. Some groups had difficulty understanding how defects in the animal's anatomy would affect its capability and the teacher used well-chosen illustrations to make this clearer. The groups critically reviewed each others' findings at the end of the lesson.

26 On a few courses, in particular first diploma courses, a significant minority of students are poorly motivated. Most students, however, are responsive in class and willing to answer questions. The range of students' knowledge and experience varies considerably. Some students are extremely knowledgeable and show a keen awareness of industrial practice. Many agriculture students, for example, have a good grasp of current market requirements and the patterns of movement of different commodities in terms of their price and quality. Some students, however, have important gaps in

their knowledge, often related to less applied aspects of their course, such as science and record-keeping.

27 In some of the good lessons, students are encouraged to engage in discussion, to draw on their own experiences and to show what they know. Too often, however, students spend long periods of time listening to the teacher and have little opportunity for discussion. Where there is the opportunity for students to work together in small groups, the more able students are sometimes allowed to dominate activities at the expense of less confident and less experienced students. Some teachers fail to monitor students' learning on a regular basis, make inadequate assumptions about students' knowledge and experience, or take too little account of the wide range of ability in the classes they teach. In a number of lessons, students are uncertain about the notes they should be making while teachers are talking to them. In others, they are spending far too much time copying material. Occasionally, teachers underestimate students' ability to plan their own work, and the students waste time waiting for teachers to tell them what to do.

28 The standard of practical work continues to be high. A substantial proportion of practical lessons are good or outstanding. Students' competences are being developed effectively and their understanding of practical matters is good. Teachers give students clear instructions on how to carry out tasks and provide good opportunities for them to develop their skills. The rationale behind the techniques being used is always explained. Students' work is supervised closely and teachers provide effective guidance on how the quality of work can be improved. In the best sessions, teachers check carefully that students understand what they are doing and why.

At a specialist college, students with specific learning difficulties and/or disabilities studying for the National Proficiency Test Council horticulture certificate were shown how to prick out seedlings in potting compost. The teacher explained carefully how to handle delicate plants and the problems which could occur if the proper procedures were not followed. During the demonstration, students were questioned to ensure that they understood the procedures and the teacher supervised them closely as they started pricking out plants for themselves. Although many of them had difficulty to start with, they rapidly improved as the teacher showed them where they were going wrong. The students worked enthusiastically and quickly gained in confidence as the lesson moved on.

29 Some teachers find difficulty in managing large classes, particularly where there is not enough equipment or too few animals for students to work with.

30 Students are highly motivated in their practical work. They carry out their tasks carefully and with due regard for safety. Standards of achievement in equine studies practical work are invariably high, and in animal care they are often good. In floristry, there is a major emphasis on developing the practical skills demanded by employers. In some subjects, the practical experience which students bring to their course varies widely and, although the standards achieved are generally satisfactory or good, not all the students realise their full potential.

31 Employers attach considerable importance to interpersonal skills and the key skills of communication, literacy and IT. Employees are expected to work unsupervised and to accept responsibility. Most colleges provide opportunities for students to develop a broad range of personal skills relevant to the industries in which they intend to work.

In another college, equine studies students tend to stable horses on a rota basis early in the morning and late in the afternoon. At the start of the week, the stable manager allocates the horse for which each student will have responsibility during the week. The students' duties include bedding down and checking on the well-being of the animals. Often, national diploma students help to develop their supervisory and teamwork skills by supervising two or three students from other courses. The students work on their own for much of the time, but are given good support by the stable staff. They become familiar with the routines used in a typical commercial stable and gain an in-depth knowledge of the college's stables and horses. The stable manager assesses students' technical competence and fitness for employment.

32 Effective planning for the systematic development of key skills, however, is often lacking. For example, teamwork and leadership skills rarely feature in lesson plans or schemes of work and weak planning for the development of communication and numeracy is adversely affecting the development of curriculum 2000 in some colleges. Teachers fail to exploit the many opportunities for developing students' numerical skills which arise naturally.

33 There have been improvements in the use of IT since the last survey report. Teachers make greater use of software to demonstrate industrial applications of IT. Students plan, monitor and analyse levels of production and financial performance with software packages used on the college farms.

Many agriculture college farms make use of computer software on dairy herd management and, in some cases, the software is also used by students. Teachers use computer data to demonstrate the

application of theory to practical problems. For example, the effects of different data on cattle's milk yield can be rapidly assessed. In some colleges, information on farm management is readily available to the students on the IT network and they are able to use it for assignments and in other exercises concerned with dairy husbandry.

34 Despite these improvements in the use of IT, there are still too many students with underdeveloped IT skills. Students who are computer literate at the start of their course use IT extensively. Others use computers mainly, or solely, for wordprocessing. Many of the mature students returning to study have poor IT skills and little is being done to address the issue. In some cases, teachers' lack of understanding of IT is restricting development.

Assessment

35 As identified in the last survey report, there is a wide and appropriate range of methods of assessment. Assignments, case studies, practical tests, and written and oral tests are used on most courses. Most colleges also have effective arrangements for internal verification.

36 Assignments are generally well designed, encouraging students to make productive use of their private study time. Students research designated topics then apply the knowledge gained in the solution of practical problems. Many of the assignments are based on real scenarios from industry and often relate to the college's own commercial enterprises and estate. In the later stages of their course, students pull together the various strands of their work by undertaking overarching assignments. Typically, these involve them in gathering the theoretical and practical information necessary to solve realistic management problems. Countryside and environmental management students, for example, often carry out a final-year assignment that requires them to prepare a comprehensive conservation plan for the

college's farm, drawing on their knowledge of surveying, plant types and habitat maintenance.

As part of their management studies, most final-year students on the national diploma in agriculture course undertake a group assignment involving drawing up an application for the tenancy of a farm. The farm selected is usually near the college. The students receive a detailed brief on its livestock, crops and financial position before visiting the farm for a discussion with the farmer. The assignment is a highly realistic exercise. In many colleges, the students present verbal and written reports to a farmer and the representative of a bank who, in turn, question the students on their proposals. To carry out the assignment effectively, the students are required to draw on work covered in their farm management course as well as many other aspects of their studies over the previous two years, including animal and crop husbandry, and farm mechanisation. Most students are highly motivated and many produce excellent work. The exercise also helps to develop students' key skills.

37 Most assignment briefs give the students clear guidance on what is required of them but the criteria to be used in assessing the work are rarely explicit enough. Assignments are not always appropriately geared to the individual student or group of students. For example, assignments set early on in a course sometimes provide inadequate guidance for inexperienced students on how to structure their work, and some assignments set later in the course fail to give more able students a chance to demonstrate their expertise. Generally, teachers provide students with good feedback on the technical content of their assignments, but they offer little comment on presentation and structure. Most marking is fair and accurate. Written feedback from teachers, however, is rarely detailed enough to help students improve their performance.

38 Many students put a great deal of effort and enthusiasm into their assignment work and achieve high standards. Some advanced level assignments are of an exceptionally high standard. Most national diploma students, particularly in their final year, produce work which is well researched and well presented, and which draws meaningful conclusions. Assignments produced by first diploma and certificate students are more variable in quality but, with a few exceptions, they are of an acceptable standard. First diploma and national certificate assignments often lack adequate introductions and conclusions.

Enrichment activities

39 Traditionally, agricultural colleges have provided their students with a wide range of enrichment activities. Over recent years, however, fewer students have wanted to take part in sporting and recreational activities and financial economies and timetable constraints have contributed to a reduction in provision. Many of the enrichment activities which are undertaken by students are relevant to their chosen vocational area. For example, some colleges organise conservation clubs and clay pigeon shooting clubs for countryside management students. Visits to farms are a strong feature of many courses, enabling students to gain an appreciation of a range of plant and wildlife habitats and their management. Students visit local businesses and go on study tours to other areas of the country and to other European countries. They are also frequently involved in organising events for the public on the college's estate; for example, lambing days and horse-riding competitions.

In a first diploma animal care lesson, students were preparing for the college's open day. They were working in groups to plan the layout of a stand to promote animal care courses and to design information posters for different types of pets. There was some lively discussion amongst

members of the group and the teacher facilitated this by explaining where further information could be found. The students worked enthusiastically and were looking forward to their involvement on the stand during the open day.

40 Rarely is an individual students' involvement in enrichment activities recorded so that the achievements can be formally recognised. Many colleges, however, are planning to make such activities a formal part of study programmes, as part of their response to curriculum 2000.

Work experience

41 Work experience continues to be highly valued by employers and students and well-managed work placements are a strength of many agriculture courses. Although economic constraints have led to a reduction in the length of placements on some courses, most full-time students still engage in some form of work placement. The period varies from one day a week, to a block of several weeks on one-year courses, to a year-long placement on some national diploma courses in agriculture, horticulture and equine studies. Generally, there are effective arrangements to brief employers and students and, in most cases, students' performance is carefully monitored. Employers support students effectively and many of them are fully involved in assessing the students' work. Work experience is usually well integrated with other aspects of students' work, although assessments of students' performance on work placements are rarely used effectively to identify individual training needs. Many students use work experience to gain practical qualifications. In some cases, however, opportunities to accredit students' achievements on work placement are being missed.

42 Students gain valuable experience carrying out routine tasks on the colleges' practical units and commercial enterprises. The managers of

equine and animal care units oversee the work but the students themselves are given substantial responsibility for feeding, bedding and checking on the health of the animals allocated to them. Agriculture students work with staff on the college farm and are involved in a wide range of activities, including milking cows and tending cattle and sheep. Students also gain knowledge and experience through their involvement in activities outside the college; for example, by working at national exhibitions and shows. Horticulture students sometimes help teachers plan and build exhibition gardens at events such as the Chelsea Flower Show.

Student support

43 Inspectors judged 71% of specialist colleges to have good or outstanding support for students, a figure 5% above the average for all colleges nationally in 1999-2000. Pre-enrolment advice and guidance is generally well managed and most students feel that interview and admission arrangements are thorough and effective. The majority of full-time students receive a comprehensive and helpful introduction to their studies and to the college. They are also given informative and useful handbooks and course guides. Induction arrangements for part-time students are generally less thorough than for full-time students.

44 Students continue to benefit from good working relationships with their teachers and are complimentary about the help they receive from college staff. Most colleges provide students with a comprehensive range of welfare and personal support services and in the specialist colleges, the staff responsible for residential students' welfare provide a valuable additional source of advice and support. Most students are allocated a personal tutor, who is generally their course tutor. This arrangement usually leads to effective tutoring in the subject but the wider educational and personal needs of students are often neglected. Some aspects of

student support are poorly managed and levels of service to students vary significantly.

45 The 1997 survey report stated that:
in many colleges, tutorials are poorly structured, learning targets are rarely set and records of tutorial activity are insufficiently detailed. Records of tutors meetings with students to discuss their progress are not comprehensive and agreed actions by which students can improve their performance are not clearly specified. Students who are not progressing satisfactorily and those at risk do not always see their tutor frequently enough.

46 The scale of these weaknesses has increased over the past few years. Although most colleges assess the basic numeracy and literacy skills of their students on entry, few systematically check students' previous experience in employment or the knowledge they have of their subject in order to identify learning needs. The proportion of students requiring additional support has increased. It is not uncommon for at least half the first diploma and certificate students to need additional learning support. However, the level of support given to students early in their course is, in most cases, inadequate. Part-time students also fail to receive the support they need. Increased responsibilities for staff mean that they are not always able to provide individual students with the level of support required. Many personal tutors need more guidance, training and time in order to carry out their duties effectively.


47 Agriculture students come from an increasingly wide range of backgrounds and their pre-entry experience and levels of achievement vary widely. Most colleges have established learning support units to provide help in basic skills for those who need it. Students who make use of the service receive effective support which is often linked to coursework or other vocationally relevant exercises. However, the number of students

taking advantage of the service is low and communication between learning support staff and personal tutors is sometimes not as close as it might be. Few specialist colleges provide childcare facilities on site.

Course management

48 Most courses are well managed. Colleges have course files containing up-to-date records of the students' performance. Course documentation has improved since the 1997 report but many schemes of work still lack detail. The links between different units of the course are not always made clear and students do not always understand the relevance of some core units; for example, the units on science and mechanisation. Bringing students from different courses together to create viable classes is not always a well-managed process, given the diverse nature of the intake. In many cases, lessons fail to meet the needs of students on the different courses because they are inadequately planned. More effective use of assignments would also help in catering for students working at different levels and on different courses. The reduction in timetabled course hours has continued, with many full-time students attending for only three or four days a week. More could be done to ensure that the time spent in college is used efficiently and effectively. For some less able students the level of work they are expected to do on their own is unrealistic.

49 Most colleges have a close relationship with employers in the agriculture sector. Links have been traditionally strong in agriculture and horticulture, and links with animal care and equine studies employers are being strengthened. Most teachers have informal links with colleagues working in industry, which helps them to plan courses which meet industry's needs. In most colleges, however, formal arrangements for consulting with industry are underdeveloped. Employers are not sufficiently involved in course review and



planning. Many colleges have regular meetings with representatives of the industries they serve, but these meetings generally lack a clear sense of purpose.

50 In many colleges, course teams meet regularly to review courses and to monitor the progress of their students. The quality of the reviews varies and, in a number of colleges, the process is neither comprehensive nor rigorous enough. In some colleges, there is no systematic evaluation of retention and achievement or analysis of trends. These weaknesses are frequently identified in curriculum area self-assessment reports. Over the last few years, inspection grades have been lower than the grades awarded by the college for about a third of curriculum area inspections. Whilst inspectors agreed with the majority of strengths and weaknesses identified in self-assessment reports, they judged that colleges overstated some of their strengths and failed to identify some key weaknesses. Inspectors generally agreed with colleges' assessments of specialist resources. However, colleges' assessments of the quality of teaching, learning and achievement are often insufficiently critical. Most colleges operate effective assessment and internal verification procedures.

Students' Achievements

51 Retention and achievement data are shown in table 6.

Table 6. Agriculture programme area: student retention and achievement data by subprogramme area 1996-97 to 1998-99

Subprogramme area	GFEC/TC			Specialist colleges		
	Number of starters excluding transfers	Retention rate %	Achievement Rate %	Number of starters excluding transfers	Retention rate %	Achievement rate %
<i>1996-97</i>						
Agriculture and commercial /production horticulture	2,715	85	63	7,941	90	79
Amenity horticulture	5,197	80	53	6,585	82	63
Floristry	3,022	78	57	1,924	80	80
Equine studies/horse management	2,492	83	67	2,864	86	72
Countryside management	2,725	78	67	4,451	91	85
Other agriculture	5,395	84	58	5,936	86	72
Not known	-	-	-	-	-	-
Total	21,546	81	60	29,701	87	74
<i>1997-98</i>						
Agriculture and commercial /production horticulture	3,168	83	64	8,685	91	83
Amenity horticulture	5,235	83	57	6,986	79	71
Floristry	2,268	76	62	1,523	79	85
Equine studies/horse management	2,625	86	64	2,544	84	81
Countryside management	2,389	78	74	3,975	90	87
Other agriculture	6,221	84	63	5,657	89	84
Not known	62	100	83	-	-	-
Total	21,968	82	63	29,370	86	81
<i>1998-99</i>						
Agriculture and commercial /production horticulture	2,783	92	78	10,185	92	81
Amenity horticulture	4,148	82	52	6,416	82	68
Floristry	2,201	76	68	1,309	81	82
Equine studies/horse management	3,158	83	68	2,966	83	76
Countryside management	4,135	83	75	2,892	87	88
Other agriculture	6,334	85	78	5,517	88	81
Not known	-	-	-	-	-	-
Total	22,759	84	71	29,285	87	79

Source: ISR

GFEC – general further education college; TC – tertiary college.

Features include:

- the high proportion of students who succeed in gaining their qualifications compared with other programme areas
- the wide variation in retention and achievement rates between colleges and courses
- an overall retention rate on full-time courses which is higher than for many other programme areas
- the poor retention rates on some courses, particularly intermediate and advanced level courses in amenity horticulture and floristry and on advanced level courses in countryside management.

52 Colleges claim that one of the main reasons for students leaving their course is that they find employment. Once students obtain jobs, few employers encourage them to continue part-time with their studies. Retention rates in specialist colleges are above the average for the programme area on countryside courses levels 1 and 2 and agriculture and animal care level 3.

53 Some colleges have launched initiatives to raise retention rates by reviewing teaching methods, tutorial support and welfare services.

One college has developed a number of initiatives aimed at raising levels of retention and achievement. There is an increasing variety of courses at foundation, intermediate and advanced level with a range of attendance options. Prospective students, particularly adults and those who are undecided about their choice of course, are skilfully guided towards the course which best meets their needs. Students complete vocational assessments to determine whether they have the particular skills required for their chosen course. Later, they receive on-course support in study skills. The tutorial programme is well organised and effective. Students' personal action plans are reviewed regularly.

Attendance is monitored closely and action is taken promptly to contact absentees. The college provides an extensive range of services relating to welfare and counselling.

54 Quality assurance arrangements, including internal audits and inspections, have led to action plans to address identified weaknesses in retention on specific courses.

In another college, students who are thought likely to leave their course are given additional tutorial and welfare support. This has had a positive impact on retention. A quality improvement group closely monitors any course where retention or achievement rates are more than 5% below the national average. Course managers are required to produce an action plan to raise retention or achievement rates to meet targets set by the college. The quality group has worked successfully with several courses to improve retention.

55 Other colleges, after analysing retention data, have amended the range of courses offered to students and, thus, improved retention rates.

A college offers an entry-level course for students with specific learning difficulties and/or disabilities and about 80% of the students progress to a first diploma course. Retention on the first diploma course was poor, because students could not cope successfully with the level of study. The college therefore introduced a GNVQ foundation land and environment course to provide the students with a bridge to the first diploma course. As a result, retention on the first diploma course has improved dramatically, particularly in the case of those students who follow the GNVQ course.

56 Colleges with residential accommodation have made good use of residential bursaries and other funds to help students to meet the cost of living in college accommodation or to meet the costs of daily travel from home. The size of the bursary allocated to colleges is related to the number of full-time students enrolled. As a result, colleges with a low percentage of full-time students living on campus can manage their bursaries more flexibly but the major proportion subsidises the costs of students living on campus. Many colleges, particularly those with large rural catchment areas, spend substantial sums of money in subsidising transport services, to ensure that students remain at college.

57 The average pass rates for students following courses in this programme area are good. Most students who complete their courses are successful. Features of achievement include:

- a rising achievement rate in specialist colleges, from 74% in 1996-97 to 79% in 1998-99
- significant improvement in the achievement rate in general further education colleges from 60% in 1996-97 to 71% in 1998-99
- consistently good achievement rates across all provision in specialist colleges, apart from levels 1 and 3 in amenity horticulture and level 1 in animal care
- low achievement rates in general further education colleges on level 1 courses in floristry and countryside management, level 2 courses in agriculture, amenity horticulture and equine studies and level 3 courses in amenity horticulture.

58 Some students take a course with little intention of taking the final examination. This is particularly true of general courses in amenity horticulture, such as the Royal Horticultural Society general certificate course, which attract large numbers of adult students. Students on other courses sometimes fail to complete their

assignments or portfolios by the agreed target date. Full-time students are often able to study for full or part awards in NVQs related to their main fields of study. Few students achieve these awards, however, because they have insufficient opportunity to compile portfolios and demonstrate competences.

59 Less than 50% of colleges offering courses in programme area 2 systematically record the destinations of students leaving their courses. Where good records exist, they show that a high proportion of students completing their courses, often more than 75%, progress to other education courses or employment. The proportion of agriculture and horticulture students who obtain employment is close to 90%. There are fewer employment opportunities for animal care and equine students, and an increasing proportion of them progress to higher education to study animal or equine science.

Resources

60 Colleges have continued to improve their accommodation since the last survey report. Many of the improvements have been driven by the need to provide realistic working environments, to support changes in teaching methods or to ensure that there are adequate resources to meet the increased number of students in areas such as animal care. Some colleges have added residential accommodation and improved recreational facilities for students. In a minority of colleges, some specialist facilities and equipment continue to be poor.

Specialist resources

61 In most specialist colleges, and those general further education colleges which have merged with an agriculture college, the quality of specialist resources remains a strength. Agriculture and horticulture college estates include landscaped grounds, sports fields, horticultural units and farms. College farms continue to provide a major resource for teaching and learning in the agriculture programme area. Students carry out much of their practical work with industry-standard facilities. The farms, and some horticultural enterprises, are run commercially and provide realistic working environments for practical work and assignments. The economic downturn in agriculture has led to a rationalisation of farming activity in most agriculture and horticulture colleges. In general, this has been well managed and the good level of support received by agriculture students, identified in the last survey report, has been maintained.

In order to retain a financially viable farming business that would also provide up-to-date practical experience for agriculture students, a college has joined forces with a local farming company to manage the farm on a commercial basis. This has enabled the college to minimise its capital investment in the farm, while giving its students the opportunity to make use of the most up-to-date equipment. Discussions have taken place with other local farming businesses to manage the college's livestock enterprises on the same basis.

62 In many colleges, there has been a growth in the extent to which college estates support countryside and environmental management courses. Conservation is carefully planned and students benefit from their involvement in the development and maintenance of new habitats which provide an effective resource for learning essential countryside and management skills. College grounds and gardens contain an extensive range of plants which students use for identification exercises and other practical activities. Floristry students usually work with good specialist resources, although the lack of convenient storage facilities, and of opportunities for gaining retail experience, are common weaknesses. In almost all colleges, there are good supplies of fresh and dried flowers, and of other materials required to prepare floral displays. Over the last few years many colleges have made a substantial investment in practical facilities for equine and animal care students. There are many good stables and areas for schooling horses. Colleges rely heavily on loans to provide a suitable range of horses for use in teaching.

63 Students in a number of colleges have played an important role in diversifying the college estate. For example, they have helped to design and construct cross-country courses for equine studies and golf courses which provide a resource for greenkeeping courses. Most of these developments generate additional income

for the college. A college wishing to establish a centre of excellence in golf and greenkeeping studies, for example, has built an 18-hole golf course with a clubhouse which now operates as a commercial company. The course provides an excellent resource for students working to achieve golf and greenkeeping qualifications.

A residential college raised over £1 million to develop indoor sports and social facilities for its students and members of the local community. These facilities have also been used to support courses in areas as sports and leisure studies. The facilities are also let to generate extra income for the college.

64 Specialist colleges, in particular, make extensive use of off-site facilities to complement their own resources. They enable students to gain a good insight into different husbandry and management techniques and to carry out practical work and assignments.

65 A few general further education colleges also have estates and/or have developed extensive specialist resources on site, primarily to support the teaching of horticulture and animal care courses. However, most of these colleges rely on their links with local employers to provide the resources for teaching practical skills and for work experience. The quality of the practical teaching and the range of animals available at employers' premises vary considerably. The work which students do outside the college is not always monitored effectively to ensure that the appropriate practical skills are being developed successfully. Often the arrangements lead to a separation of theory and practice, creating a gap which students find difficult to bridge.

66 Over the last few years, colleges have experienced a significant shift in the balance of provision from courses in agriculture and countryside management to equine studies and animal care courses. The shift has accelerated recently and looks set to continue for some years. The change in the balance of provision,

coupled with a reduction in funding for some colleges, has not always been well managed. Although many colleges have invested heavily over the last few years in areas in which there has been a substantial growth in numbers, investment has not always matched demand. Many colleges have good facilities to support animal care courses. In some, however, the development of practical facilities has not kept pace with the growth in student numbers. Often the range of animals available to students is satisfactory but the overall number of animals inadequate. In a few colleges, investment in equine facilities has been based on over-ambitious growth targets that have failed to materialise, so that the facilities are under used. In some colleges, much of the equipment used by agriculture students is old and in need of replacement. Capital replacement programmes are often poorly planned. In many cases, equipment shortages are made up by borrowing equipment from local employers, for use either at the college or on the employer's premises.

Learning resources

67 Since the first survey report, many colleges have continued to expand and improve their libraries and learning resources. As the amount of time students spend in timetabled lessons falls and students undertake more private study and group learning activities, greater reliance is being placed on learning centres. Sometimes, however, the learning materials available in these centres are neither appropriate nor sufficient for such activities. Some colleges have been slow to develop or provide adequate resources for students to work with on their own. In many agriculture and horticulture colleges, the development of learning resources has not kept pace with demand. Books and other learning materials are generally adequate to support agriculture, countryside and horticulture courses although, in some colleges, bookstocks are becoming outdated. However, there is often a shortage of learning resources in subjects such as equine studies and animal care

where student numbers have expanded recently. In many colleges, improved liaison between teachers and learning centre staff is ensuring that resources are used to the best advantage. Most colleges provide resources at the main campus, which is often some distance away from where learning takes place. This limits teachers' and students' opportunity to use these resources in timetabled lessons. Few colleges have developed specific learning resource areas within teaching departments.

68 Colleges continue to invest heavily in IT and, in most cases, the number of computers meets student demand. Increasingly, students have easy access to IT and to the Internet. They are encouraged to develop their IT skills and are required to wordprocess assessments and present information on spreadsheets and databases. Software to support teaching and learning in the agriculture area is developing slowly but students are able to make use of commercial applications used in the vocational areas in which they work; for example, computer-aided design for garden and landscape planning.

69 Classrooms vary in layout and appearance, from good, modern suites to drab and cold accommodation, often in converted farm buildings. Since the last survey report, some colleges have rationalised their classroom accommodation and developed it in conjunction with practical facilities. Specialist colleges, generally, do not have enough rooms suitable for teaching large groups of students. Up-to-date displays of students' work and industrially relevant material help to promote an appropriate ambience for agriculture subjects in some colleges. Although measures have been taken to improve access at many of the specialist colleges, many parts of their buildings remain inaccessible for people with restricted mobility.

Staffing

70 Teachers are appropriately qualified in their subjects and most now have relevant assessor and verifier awards. Some do not possess formal teaching qualifications though newly appointed teachers are now usually required to obtain a teaching qualification. Part-time teachers have insufficient opportunities to develop their teaching skills. Many teachers have good links with industry and a good awareness of current industrial practice but most of them, particularly those teaching agriculture and horticulture do not have recent industrial experience. Teachers of equine subjects generally have recent and relevant commercial experience but some animal care teachers have little or no such experience. In many colleges, an increasing proportion of the teaching on animal care courses is undertaken by staff from other departments, such as science teachers, who have no working background in animal care.

71 Teachers receive adequate support from technicians and instructors. Many staff have dual roles as technician and instructor and ineffective management of the combined roles sometimes has an adverse effect on the quality of service. Workers on college farms, and technicians in animal care, actively support students' learning. They supervise students on routine duties and are often involved in their assessment. Many of them have achieved assessor qualifications.

Conclusions and Issues

72 Many of the conclusions reached in the first curriculum area report in 1997 remain valid. The quality of teaching in the agriculture programme area remains satisfactory overall and, is sometimes good. However, *Quality and Standards in Further Education: Chief inspector's annual report 1999-2000*, identifies that the proportion of lessons graded 1 and 2 is lower than many other programme areas but the proportion of curriculum areas graded 1 and 2 is higher than for many other programme areas. Over the last few years, inspection grades for curriculum areas have been lower than the grades awarded by colleges in their self-assessment reports in about one-third of cases. Whilst inspectors agreed with the majority of strengths and weaknesses identified in the reports, they concluded that many strengths were overstated and that a number of key weaknesses were not recognised, particularly in relation to the quality of teaching and learning and students' achievements.

73 Both specialist and general further education colleges are key providers of education and training for students wishing to pursue a career in the land-based and associated industries and for those currently working in the industry. In general, the colleges are responding well to the needs of students, to the needs of industry and to public sector initiatives to promote inclusive learning and widen participation.

Particular features of provision are:

- the good range of courses in most areas
- the teaching and learning which are strongly vocational
- the good links with industry
- the good use of assignments
- some high retention and achievement rates on full-time courses
- effective use of college estates and off-site facilities.

Particular issues facing colleges include:

- the financial and efficiency pressures on specialist colleges
- the low number of students on many courses
- the failure to cater for students of all abilities
- the varying quality of student support
- the failure always to manage changing circumstances effectively.

74 The period of rapid change identified in the last report is by no means over for colleges. Strong leadership and effective quality assurance remain high priorities for the future if the needs of students and employers are to be met.

Bibliography

Agriculture: Curriculum area survey report, FEFC, Coventry, 1997

Agriculture Programme Area Review, FEFC, Coventry, 1999

Managing Finances in English Further Education, National Audit Office, London, 2000

Quality and Standards in Further Education in England 1998-99: Chief inspector's annual report, FEFC, Coventry, 1999

Quality and Standards in Further Education in England 1999-2000: Chief inspector's annual report, FEFC, Coventry, 2000

Skills in the Land-based Sector – Labour market report stage 2, Lantra National Training Organisation Ltd, Stoneleigh, 2000

Third report of the National Skills Task Force, DfEE, London, 2000

Acknowledgements

Colleges visited

Canterbury College

Craven College

Easton College

Huddersfield Technical College

Merrist Wood College

Myerscough College

Norton Radstock College

The College of West Anglia

Warwickshire College, Royal Leamington Spa and Moreton Morrell

West Oxfordshire College

Webcover

Published by the
Further Education Funding Council
© FEFC 2001

February 2001

Extracts from this publication may be reproduced for non-commercial educational or training purposes on condition that the source is acknowledged and the findings are not misrepresented. This publication is available in an electronic form on the Council's website (www.fefc.ac.uk).

Further copies can be obtained by contacting the communications team at:

The Further Education Funding Council
Cheylesmore House
Quinton Road
Coventry CV1 2WT

Telephone 024 7686 3265
Fax 024 7686 3025
E-mail fehcpubs@fefc.ac.uk

The print run for this document was 3,300 copies
Please quote the reference number below when ordering.
Reference INSREP/1232/01